

After some trouble and considerable search on the part of the surveillance force, all nine ships were intercepted and their total combined load of forty-two missiles visually verified.

...and
Their
Bombers

3. Phase III, from 11 to 21 November. Task Force 136 dissolved. During this period, six additional ships were trailed as being of special interest. Beyond this phase, during the first week in December, three additional ships were intercepted upon departing Cuba carrying a total of forty-two crated Il-28 bomber aircraft.³⁶

(U) TF 135, the attack carrier striking force deployed from 11 October to the end of November, served to cover the quarantine and amphibious forces as required. The two carriers in TF 135 were *Enterprise* (CVAN 65) with CVG-6, and *Independence* (CVA 62) with CVG-7.

(U) The ASW operations during this period were well summarized by CINCLANT: (U)

Cuban
ASW
Operations

(U) As early as 13 October, the Fleet was alerted to the strong possibility of Soviet submarine activity in the Western Atlantic. At this time the MSTs tanker *Yerkon* reported a surfaced submarine 130 miles north of Caracas, Venezuela. Its identity was not determined. The sudden appearance of the Soviet oiler *Terek* in the Western Atlantic on 18 October became a matter of prime concern, since it was considered likely that submarines would use the *Terek* for replenishment. Soviet trawlers were also in the Western Atlantic area and were kept under surveillance throughout the crisis.

(U) During early October, ASW forces were employed in their normal operations. Long range air patrols from bases in Iceland, Argentina, Azores, Bermuda, Guantanamo Bay, and the CONUS were being conducted. The Ready HUK Group was conducting operations off the East Coast of the United States. As the Cuban situation began to deteriorate and with the setting of DEFCON 3 the tempo of ASW operations increased.

(U) The large scale movement of amphibious forces to the Caribbean required VP aircraft coverage. Canadian Argus aircraft under

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CANCOMARLANT increased their ASW surveillance and their assistance and cooperation in ASW throughout the crisis contributed significantly to the ASW effort. Without this valuable assistance much of the Western Atlantic area would not have been adequately covered because of the heavy ASW commitments.

(U) Argentia Sub-Air Barrier was established on 24 October to detect submarine activity as far forward as possible. Seventeen U.S. VP aircraft and ten U.S. submarines assisted by Canadian forces, participated in the barrier operation. Flight operations reached a tempo of 120 hours per day. Barrier was disestablished on 13 November.

(U) A total of twenty-nine submarine contacts were investigated during the crisis. Six of the contacts were determined to be positive submarines. On 28 October, Task Group ALFA identified a submarine found on the surface as a Soviet Foxtrot class. Photographs were obtained. On 31 October, ASW units forced a Soviet submarine to surface after maintaining 35 continuous hours of sonar contact. The submarine had the number 011 painted on one side of its sail and 911 painted on the other side. Another Foxtrot class submarine with the number 945 on its side was found on the surface on 3 November.

*Six Positive
Contacts Are
Four Foxtrots*

(U) Throughout the period, Fleet ASW forces were kept active and they operated at near wartime rates. The scope of the ASW effort can best be revealed by the following statistics:

Aircraft Type	Sorties	Flight Hours	Personnel
VP	1,404	11,302	3,907
VS	2,022	8,408	2,000
HS	918	2,136	952
VAW	371	1,564	280
VW	34	476	1,333

Statistics

(U) In addition, 6,546 men on four CVSs directly supported the ASW effort. USAF aircraft also flew 87 sorties and 571 hours in support of ASW.³⁷

*Some of
the Results*

(U) It is interesting that during 1962, CINCLANT received 401 submarine contact reports of which 139 were evaluated as U.S. or friendly and 169 "positive submarine." Of these latter, 149 were obtained during the July surveillance of the Soviet Fleet exercise in the Norwegian Sea and six during the Cuban quarantine operations "the first time a substantial number of Soviet submarines was detected in the Western Atlantic."³⁸ These six, however, were all conventionally powered Foxtrots which had deployed well in advance of the crisis. VP and E-1B aircraft played impressive roles in initial detections with the surface forces called in when endurance was required to stay with the contacts of interest. As of 30 November, as reported above, there had been a total of twenty-nine contacts which, as well as the six positives, included four probables and five possibles. Some of these contacts were monitored for extended periods of time. The record was held by contact C-18 (Foxtrot 945) which was under surveillance from 24 October until 17 November.³⁹

*MAD and
JULIE
Perform
Well*

(U) MAD and JULIE proved particularly valuable in classification and localization against what was essentially a Soviet version of the Type XXI German submarine. JEZEBEL performed with some confusion at times. This was assessed as due in part to interference in sonobuoy readout. 450 flight hours were spent on one contact erroneously classified due to this problem. In addition, for one period it was concluded that *Enterprise* (CVAN 65) was being trailed by a nuclear powered submarine (Contact C 21). This proved an incorrect classification judged due to self-induced aircraft noise in the sonobuoy/JEZEBEL readout.

*The Larger
View*

(U) In terms of sea-based airborne ASW, the Cuban experience was important for several reasons. It demonstrated the versatility of sea-based ASW aircraft to perform in other than the pure ASW role. The CVS air groups proved to be very good at long range surveillance of surface shipping and this became one of their prime responsibilities during the Vietnam War. Cuba was the first time since World War II that the Navy's ASW forces were able to aggressively use the new ASW systems against potentially hostile submarines. In 83 days of continuous ASW operations, submarine contacts were investigated, held, often until surfaced, and escorted from the area. In the larger context, the U.S. Navy's ASW operations had demonstrated the vital importance of sea control.

*The CVS Years**The Fleet's Post-Cuban Problems*

(U) In the years immediately following the Cuban crisis, however, nothing had really changed regarding the Fleet's basic problems as reported by Admiral H.P. Smith, CINCLANT, in 1964: (U)

(U) The ASW capability of the Atlantic Fleet against conventional submarines is improving consistently, however, the ability of the fleet to combat the nuclear submarine is unsatisfactory. There is considerable disparity between the increasing threat posed by Soviet submarines and the declining inventory of U.S. antisubmarine forces. Block obsolescence of forces accentuates the problem; e.g., 70 percent of the deployable submarines and 70 percent of the escorts of the Atlantic Fleet are over eighteen years old. This unsatisfactory situation is compounded by an acute shortage of conventional ASW torpedoes where current level is approximately 56 percent of shipfills. The problem is further aggravated by a serious shortage of supervisory personnel in ASW-related rates and increasing complexity in new sensors and weapon systems.⁴⁰

*The Atlantic
Fleet's
Deficiencies
1964*

(U) In the Pacific for the same period COMASWFORPAC reported that while there had been "a marked improvement in command coordination and tactical utilization of ASW vehicles and sensors," nevertheless: (U)

(1) (U) Overall, ASW search effort is degraded by required investigation of numerous false contacts accentuated by poor environmental conditions.

*Pacific
Fleet
Problems*

(2) (U) SOSUS is unable to provide accurate positional information on enemy intruders.

(3) (U) Airborne LOFAR is the best detection device but there is essentially no capability to localize the resulting contacts.⁴¹

(U) To back up the third point above, at this time LOFAR in the Pacific was giving a single buoy detection probability of 20 percent with accurate classification capability after detection of 70 percent at assessment ranges of 125 miles. However, during DEFSLAMEX 2-64, of

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115 valid LOFAR contacts on transiting submarines achieved prior to coordinated submarine missile launch, only three had resulted in successful localization, two of these by visual means while attempting CODAR conversion.⁴²

Reorganization Within OPNAV*Pressures to
Change*

(U) During the 1960-1964 period, the outside pressures from the Congress and DOD continued to build towards forcing the Navy to strengthen its ASW organization within OPNAV. Congress in particular expressed a concern which it had felt since the fifties. The consensus of the House Appropriations Committee was that the Navy was not devoting enough of its resources to ASW. This dissatisfaction crystalized in that Committee's Report for FY 61 which called for the creation of a "czar" for antisubmarine warfare, organized along the lines of the Polaris program which was then performing impressively.

*Navy
Management
Studies*

(U) The Secretary of the Navy, William B. Franke, in the ASW Committee meeting held on 18 January 1961, recommended that the Navy should continue to resist the formation of a "Special Projects" organization for ASW warfare within OPNAV. However, on 25 January 1961, Secretary Franke was replaced by John B. Connally as Secretary of the Navy, and on 1 August 1961 Admiral Burke was relieved as Chief of Naval Operations by Admiral George D. Anderson.* During this period, on 9 June 1961, Assistant Secretary James H. Wakelin ordered the Navy Management Office to conduct a study of ASW R&D efforts within the Department of the Navy. The original objectives of this effort were to come up with an acceptable definition of antisubmarine warfare and to identify all ASW R&D activities within the Navy. By July, however, these objectives had been expanded as reported by Captain E.C. Outlaw (Op-05W) to the DCNO (Air) (Op-05), VADM Pirie:

(U) The purpose of the study is to determine if the present ASW organization is adequate and, if so, to accumulate substantiating data to counter outside criticism. The study is primarily concerned with the R&D aspects of the ASW organization. However, the group is looking into all aspects of ASW with particular emphasis on requirements.⁴³

* CNO from 1 August 1961 to 1 August 1963.

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(U) Out of this activity came the basic recommendation that the responsibilities of the Office of the ASW Readiness Executive (Op-001) be split. Those operationally oriented would go to the DCNO (Fleet Operations and Readiness (Op-03)) where they would be combined with Op-312 (Antisubmarine Warfare Readiness Branch) and Op-315 (Mine Warfare and Harbor Defense Branch) to become the new Antisubmarine Warfare Readiness Division (Op-32). Op-001's R&D responsibilities would move to the DCNO for Development (Op-07). This approach was accepted and as a result, on 20 October 1961 Admiral Anderson, the new CNO, abolished Op-001, establishing Op-32* and Op-07C, each as rear admiral billets. This change in effect emphasized that Op-03 was the overall Naval Warfare Deputy of the CNO as recommended by the Franke Board in 1959. It also put a flag officer exclusively concerned with ASW back in the executive chain of command. Responsibilities included policy development in the conduct of antisubmarine operations, mine warfare and ocean surveillance.

*Op-001
Disappears*

*Op-32 and
Op-07C Are
Formed*

(U) In explaining these changes to Congress in February, 1962, Admiral Anderson summarized the pervasive aspects of ASW throughout all areas of the Navy when discussing the assignment of ASW responsibilities:

(U) The only two people in the Navy that can look at the full spectrum of antisubmarine warfare, or anything else for that matter, are the Vice Chief of Naval Operations and myself.

*The Navy's
ASW Problem*

(U) . . . After looking over the situation and studying the report of the management group in the Secretary of the Navy's office, we decided to eliminate that billet (Op-001) and to concentrate the R&D side under the Deputy Chief of Naval Operations (Development) who is also responsible to the Assistant Secretary for R&D, and to concentrate the operational side under my Deputy Chief of Naval Operations for Fleet Operations and Readiness (Op-03).

*Admiral
Anderson's
View*

(U) We believe that this is the best arrangement that we have been able to envisage in this general area because almost everything

* Rear Admirals Mustin and Groverman became the first two heads, respectively.

in the Navy, . . . except perhaps the amphibious forces, and they become involved in it also one way or the other, is mixed up in antisubmarine warfare.⁴⁴

(U) Congress, however, was still not satisfied. Said Congressman Daniel Flood, "You've thrown us a bone by giving us a flag officer to handle ASW."

*The Dillon
Board*



*Secretary of the Navy
Honorable Paul H. Nitze*

U.S. Navy

(U) In March, 1962, Secretary of the Navy Fred Korth created an even more ambitious Navy management review board which became known as the Dillon Board. Its report described as "the most comprehensive review of the management processes and structure of the Department of the Navy in twenty years" was issued on 15 December 1962. One of the primary recommendations of this report resulted in the creation on 2 December 1963 of the Chief of Naval Material, heading the four previously independent Material Bureaus. Until May 1966, under this arrangement, CNM would report directly to the Secretary of the Navy rather than the CNO. Within the new CNM organization, a number of major systems oriented project offices were created, covering major programs which cut across bureau responsibilities. One of these was the ASW Systems Project Office responsible for all ASW systems development. Headed by Rear Admiral C.A. Karabaris and initially based on a cadre of ten people in May 1964, the ASW Systems Project Manager was formally established on 2 July by Secretary of the Navy Paul H. Nitze.* Within a year it had grown to an organization of several hundred people with extensive ASW systems responsibilities.

Establishment of Op-95

*SecNav
Nitze
and Op-95*

(U) Secretary Nitze, shortly after taking office in November 1963, moved promptly to further strengthen and centralize the Navy's ASW planning and policy functions within OPNAV by creating the Office of the Director of ASW Programs, Op-95, reporting directly to the Chief of Naval Operations. As he recalled some years later:

(U) When I became Secretary of the Navy . . . I found I wasn't satisfied with the way in which the Navy was organized to address itself to the ASW problem. . . . The responsi-

* Secretary of the Navy from 29 November 1963 to 30 June 1967.

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bility was divided in OPNAV and it was certainly divided within the material bureaus. So one of the first things I did was to get Charlie Martell here and I decided you're going to be the man and you're going to be at OPNAV and you're going to be responsible for everything in ASW in OPNAV. What's more, you're going to have authority over everything in ASW in the Material bureaus in order to make this work.⁴⁵

(U) Vice Admiral Charles B. Martell, then Commander SECOND Fleet, was brought to Washington to serve as the first Director of Op-95 starting 1 May 1964, thus becoming the Navy's first vice admiral exclusively concerned with ASW.* In describing the strength of the new office during an interview, VADM Martell made some interesting comparisons:

(U) Op-001 never had any real authority; he was an advisor, and nothing is easier to circumvent than an advisor. I not only advise but control. No one can pick up a pencil around here without my approval. Of course, the CNO can listen to others, but if he does, there is no point in having this office.

(U) In the past, there has been no order of priority and some programs were carried along on shoestring funding. The remarkable thing is that we got anything out of them. We intend to establish priorities and see that these programs are properly managed and supported.⁴⁶

(U) In February 1964 the new CNO, Admiral David L. McDonald summarized the strengthened ASW organizations in Washington for Congress:

(U) When the Chief of Naval Material assumed command of the four material bureaus on

* VADM Martell served as Director of Op-95 until his retirement 31 October 1967. Previously, after promotion to Rear Admiral, he had served as Deputy Director of Naval Intelligence (July 1956-April 1958), as Director of Special Planning, he had supervised the merger of the Bureaus of Ordnance and Aeronautics (1959), was ACNO, Development (Op-07B) (September 1959-March 1961) and had become Deputy Director of Defense Research and Engineering, Administration & Management (March 1961-July 1963).

*VADM Martell
Becomes the
First Op-95*



*Vice Admiral
Charles B. Martell*

Admiral
McDonald
Summarizes
the New ASW
Organizations



Rear Admiral
Constantine A. Karabaris

2 December 1963, he forthwith established an ASW project administrator with direct control and authority over all aspects of ASW in each of these material bureaus. This office has already been staffed and is headed by a flag officer (RADM Karabaris). We are concentrating the ASW effort in the Office of the Chief of Naval Operations under an Executive Director of ASW programs. This officer will be of three-star rank, having direct access and coordinating authority over ASW matters in all areas in the Office of the Chief of Naval Operations, including research and development. Additionally, he will be a member of the Ships Characteristics Board, and will be the program sponsor for the entire ASW effort. He is charged with reviewing the financial decisions on Navy programs, evaluating their impact on the total ASW program and thus initiating action to insure the adequacy of the ASW program. With the requirements and operational aspects thus concentrated in the Office of the Chief of Naval Operations and the producer functions concentrated under the Chief of Naval Material, I believe that we will have attained a most effective ASW organization. The Executive Director of ASW Programs, functioning directly under me, will be the Mr. ASW for the Navy.⁴⁷

(U) VADM Martell now headed the most powerful ASW organization Washington had seen since the demise of the TENTH Fleet in May, 1945. He and RADM Karabaris would provide the highly visible central ASW authority which Congress had been seeking.

ASW Organization in the Fleets

(U) The Atlantic ASW organization, headed by COMASWFORLANT, formerly COMASDEFORLANT, remained relatively stable organizationally during the 1960-1964 period. The Atlantic Fleet maintained an average of five antisubmarine carriers (CVS) supported by seven air groups (CVSG), the latter figure dropping to six by 1964. The Developmental ASW Forces represented by special Task Groups ALFA, BRAVO, and CHARLIE, created in 1958, were joined on 1 September 1961 by Task Group DELTA consisting of a squadron and a half of VP aircraft plus SOSUS stations as assigned. This

Force Levels
and
Disposition

The CVS Years

group was charged with exploring improved operational coordination with the SOSUS system under ASWFORLANT. While initially assigned on a trial basis for one year, DELTA's life was extended, initially due to sonobuoy and submarine service shortages but finally due to its operational success. During the 1960-1964 period, one CVS would normally deploy each summer to the Eastern Atlantic and Mediterranean. It is noteworthy that during much of the 1960-1964 period--until August 1964--*Randolph* (CVS 15) remained the main TG ALFA carrier with CVSG 58 on board, this initially consisting of two squadrons of S2F-3, one squadron of HSS-1N, and four WF-2 in late 1961.

*Task Group
DELTA
Formed*

(U) Similarly, the Pacific Fleet ASW organization remained largely unchanged until 1964, with Commander Antisubmarine Force, Pacific* acting "as principal advisor to CINCPACFLT in all matters pertaining to Antisubmarine Warfare and the control and protection of shipping."

(U) As in the late fifties, direct operational control of the Pacific ASW carrier groups was shared by the FIRST and SEVENTH Fleets. All ASW support carriers and ASW capable destroyers not in a ready condition, were assigned to the FIRST Fleet TF 12 organization (later TF 11). Each ASW support carrier and one destroyer division then moved up to become TF 14.7, the Ready** Hunter-Killer Group, prior to deploying to the SEVENTH Fleet. There, the HUK group was redesignated ASW Hunter-Killer Group TG 70.4, it arriving in a fully operational condition having worked up as an integrated ASW force for some months prior to its arrival in WESTPAC. An ORE in Pearl Harbor conducted by COMASWFORPAC ensured this as each ASW group deployed. As reported by ASWFORPAC in 1964, FIRST Fleet ASW operations were primarily training exercises providing an indication of the present state of ASW readiness of forces during work-up periods; whereas SEVENTH Fleet ASW exercises measured the sustained readiness of the deployed forces.⁴⁸ Four CVSS participated in this cycle during this period backed up by five ASW Carrier Division Groups (CVSGs).***

*CVS Group
Movement*

* Redesignated Commander Antisubmarine Warfare Force, Pacific (COMASWFORPAC) in 1962.

** Available on 96 hours notice.

*** During October and November 1960 the largest submarine contact investigative effort in peacetime to that point was conducted by joint Canadian and U.S. surface and air units which followed a single contact off the Northwest U.S. and Canadian coast for several days. This provided valuable exercise experience for the Ready Hunter-Killer Group, TG 14.7.⁴⁹

ASW Groups
ONE, THREE,
and FIVE
Formed

(U) On 15 January 1964, Antisubmarine Warfare Groups ONE, THREE, and FIVE were established by CINCPACFLT replacing ASW Carrier Divisions Fifteen, Seventeen, and Nineteen. Most importantly, the ASW Group Commanders for the first time now reported administratively to COMASWFORPAC. Additionally, COMASWFORPAC became CTF 30 on matters of ASW surveillance and reconnaissance, a designation originally assigned to CINCPACFLT himself. As summarized by COMASWFORPAC in 1964:

ASWFORPAC
Finally Gets
a Little
Power

(U) The principal gain to ASW was in having the ASW Group Commanders reporting directly to COMASWFORPAC, with the type commanders retaining their traditional responsibilities for the aircraft carriers, aircraft, destroyers and submarines regularly or temporarily assigned. This arrangement serves to relieve the ASW Group Commanders of the routine administrative responsibilities they had as Carrier Division Commanders and permits them to address their full attention to ASW matters, principally those of intertype nature. This arrangement has provided COMASWFORPAC with three commanders and staffs directly responsive to him for the development of tactics, doctrines and procedures and for research into and development in specified areas of ASW concern such as protection of Strike Groups and convoys. This arrangement is similar to the Atlantic although COMASWFORPAC does not normally exercise operational control of the ASW Groups as the Pacific ASW Groups are successively deployed with the SEVENTH Fleet in the Western Pacific.⁵⁰

(U) In September 1964, Commander Ocean Systems Pacific was established, paralleling the Atlantic Oceanographic System in most respects. All but one Alaskan SOSUS station came under this new command.

1964 Overview

(U) Thus on the eve of the Vietnam conflict, Sea-based Airborne ASW reached its highest water mark in terms of totally dedicated hardware and organization. Nine carriers, many with ASW FRAM conversions and carrying JULIE/JEZEBEL equipped aircraft as well as new helicopters with the AQS-10 dipping sonar were operationally controlled

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by ASW commands in the two fleets, which were the strongest since World War II. In Washington, Op-95 headed by a vice admiral, had been established within OPNAV to provide centralized direction to new ASW developments. Matching this was the new ASW Systems Program Office within the recently created Naval Material Command Structure, designed to ensure effective ASW systems program development.

What It All Means

(U) The dedicated Essex class 27A antisubmarine carriers, further modified by ASW FRAM conversions during this period, were the focal point of the Navy's open ocean ASW capability particularly when operating away from shore based long range air. The carriers' S-2E and SH-3A aircraft, despite their limitations, proved to be an improvement over anything previously available at sea as the JULIE and JEZEBEL sonobouy detection systems reached the fleet. This was a period of rapid expansion in electronic technology. The highly publicized Task Groups ALFA, BRAVO, CHARLIE, and DELTA all worked to develop airborne ASW, two of these groups exclusively for the CVS task groups. There were, however, problems. The CVS's limited air defense capability was a concern which was matched by the addition of four A-4B aircraft while the AD-4 and -5W AEW aircraft were replaced by the much more capable E-1B. The effort to improve destroyer long range ASW weapon delivery had been slowed by the unexpected problems encountered with the destroyer-based DASH system to which nearly two hundred ships were committed. Manned helicopters were debated as substitutes but the Navy doggedly pushed ahead with the improved QH-50D.

(U) The Soviets moved to counter the carrier threat at sea as well as to establish a credible sea-based deterrent. This brought into being their first generation of nuclear powered submarines, the H-E-N classes, as well as introducing conventionally powered, designed-for-the-purpose ballistic and cruise missile boats. The SSBs commenced periodic patrol late in this period off both coasts while the cruise missile submarines looked to more immediate targets such as the ASW and attack carriers. Soviet air activity increased significantly as the far ranging Bear, Bison, and Badger aircraft assisted in target identification while providing the means for cruise missile midcourse guidance. As a result, the limited air intercept capability of the of the CVSs became a matter of growing concern to the senior commanders in both fleets.

(U) Two developments during this period served to fundamentally change the course of future airborne ASW. First, the success of SOSUS as an area intelligence source led to its rapid expansion in forward areas of the world as it became the primary means of tracking Soviet submarine movements in critical areas of both oceans. Secondly, the P-3 Orion long range landbased aircraft began fleet introduction, replacing the smaller, aging P-2 Neptune. The P-3 matched the sharply increased demands the growing SOSUS system required for contact follow-up. In both oceans this new team--SOSUS and VP--with its covert capability emphasized the contrasting CVS task group's role in overt task force protection and intensive limited area sanitization.

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50. COMASWFORPAC Secret Report to the SecNav, ASW Committee, 15 March 1965, p. 1.

51. Op-001 Confidential Memorandum for Op-05, 4 August 1961, Serial 068-61, Record Group 38, WNRC, pp. 1-2.

CHAPTER VI

The Vietnam War

1966 - 1970

(U) The last half of the sixties was dominated by the Vietnam War, which would lead to the de-emphasis of the CVS as the Navy's primary ASW system. Over twenty years old and manpower intensive, these carriers would be used increasingly for missions other than ASW, except for a brief, and successful, period in 1967 and 1968 in the Mediterranean after the Israeli-Arab Six Day War. SOSUS and its land-based P-3 partner moved to the fore as the Navy's most effective ASW team, the newer forward SOSUS area installations justifying the Navy's most optimistic hopes as an operational intelligence tool in the Norwegian Sea and North Pacific. The Soviet submarine force with its increasing missile capability now deployed regularly off both coasts, and much of the ASW force training was devoted to keeping track of the real thing. The single purpose DASH system was finally acknowledged as inadequate and a manned replacement sought, this being emphasized by the surface-to-surface cruise missile actions of the 1967 Six Day War. DASH would be finally replaced by a more flexible manned airborne helicopter system in the early seventies. The operational ASW forces, faced with the tremendous data handling requirements of the Navy's ocean surveillance systems, reorganized to handle both the data and its command and control implications, reaching the peak of their effectiveness in both oceans during this period. The Soviets' progress in underwater technology continued unabated with the introduction of their quieter second generation C-V-Y classes, the "Y" representing their first sixteen missile Polaris-like submarines of the Yankee class.

The Vietnam War

THE THREAT 1966-1970

Tu-22
BLINDER-C

Max Speed	800 kts
Gross Weight	185,000 lbs
Range	1,215 nmi

Tu-95
BEAR-C

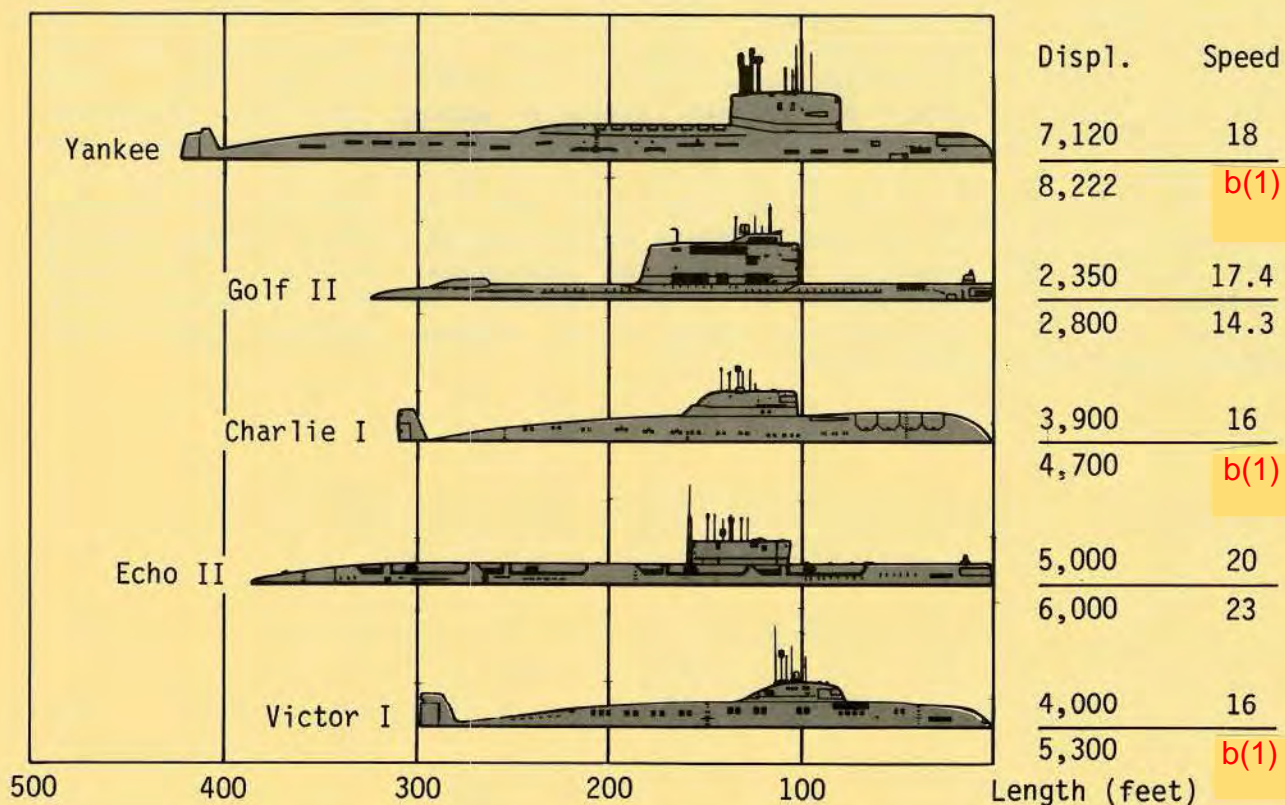
Cruise Speed	410 kts
Gross Weight	340,000 lbs
Unrefueled Cruise Radius	4,050 nmi

M-4
BISON-B

Cruise Speed	450 kts
Gross Weight	350,000 lbs
Range	6,075 nmi

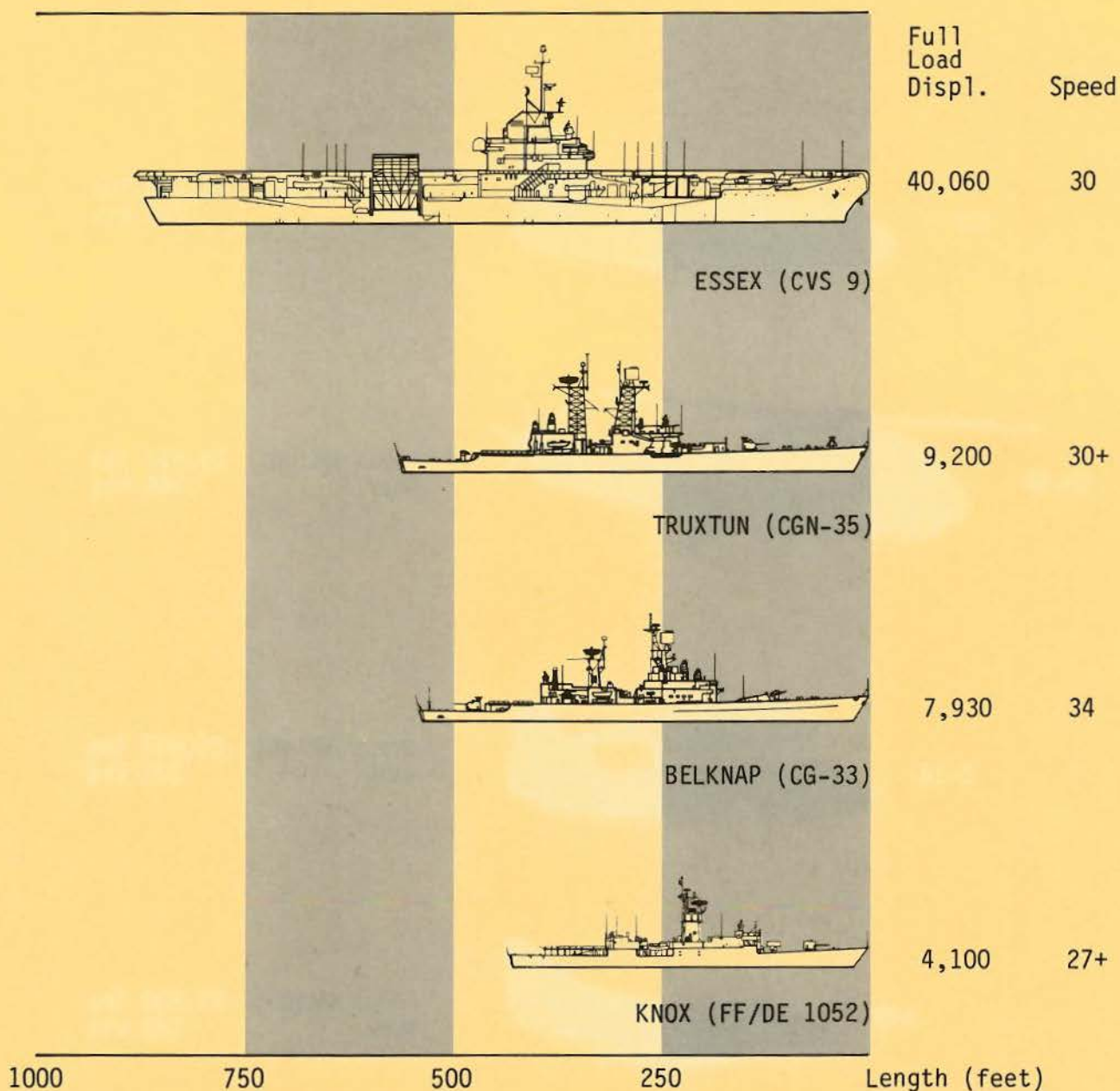
Tu-16
BADGER-D

Cruise Speed	417 kts
Gross Weight	150,000 lbs
Range	3,450 nmi



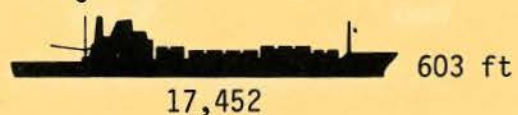
The Vietnam War

SEA-BASED AIRBORNE ANTISUBMARINE SHIPS 1966-1970

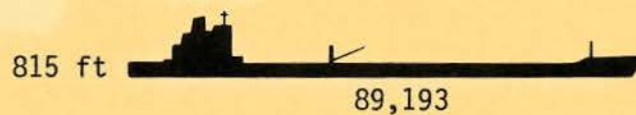


TYPICAL MERCHANT SHIPS

Freighter



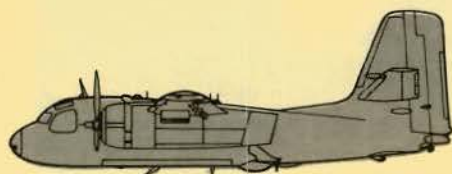
Tanker



Average of New Construction - DWT Tons

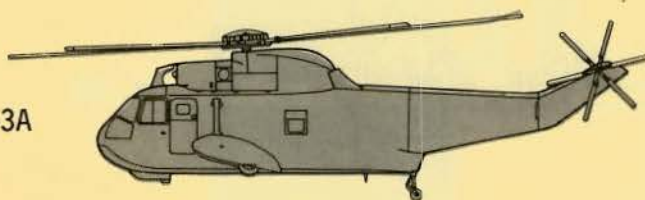
SEA-BASED AIRBORNE ANTISUBMARINE AIR 1966-1970

S2F-3



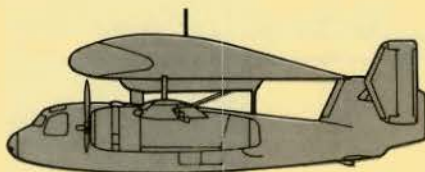
Gross Weight 26,150 lbs
Vmax 220 kts

SH-3A



Gross Weight 18,897 lbs
Vmax 144 kts

E-1B



Gross Weight 26,867 lbs
Vmax 220 kts

A4B



Gross Weight 22,500 lbs
Vmax 583 kts

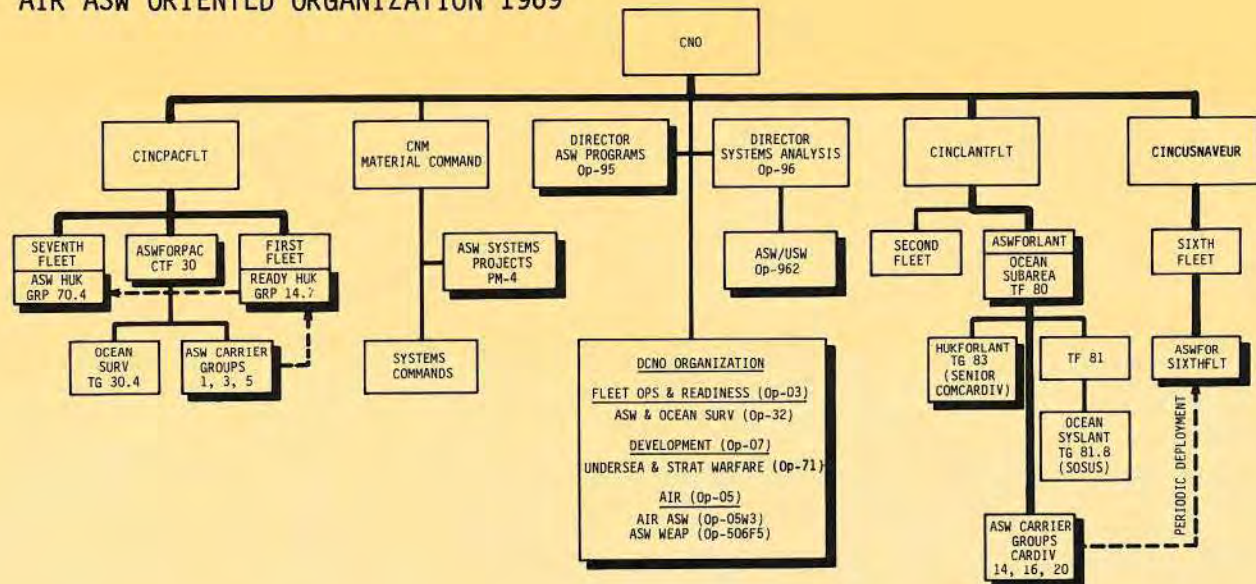
QH-50C



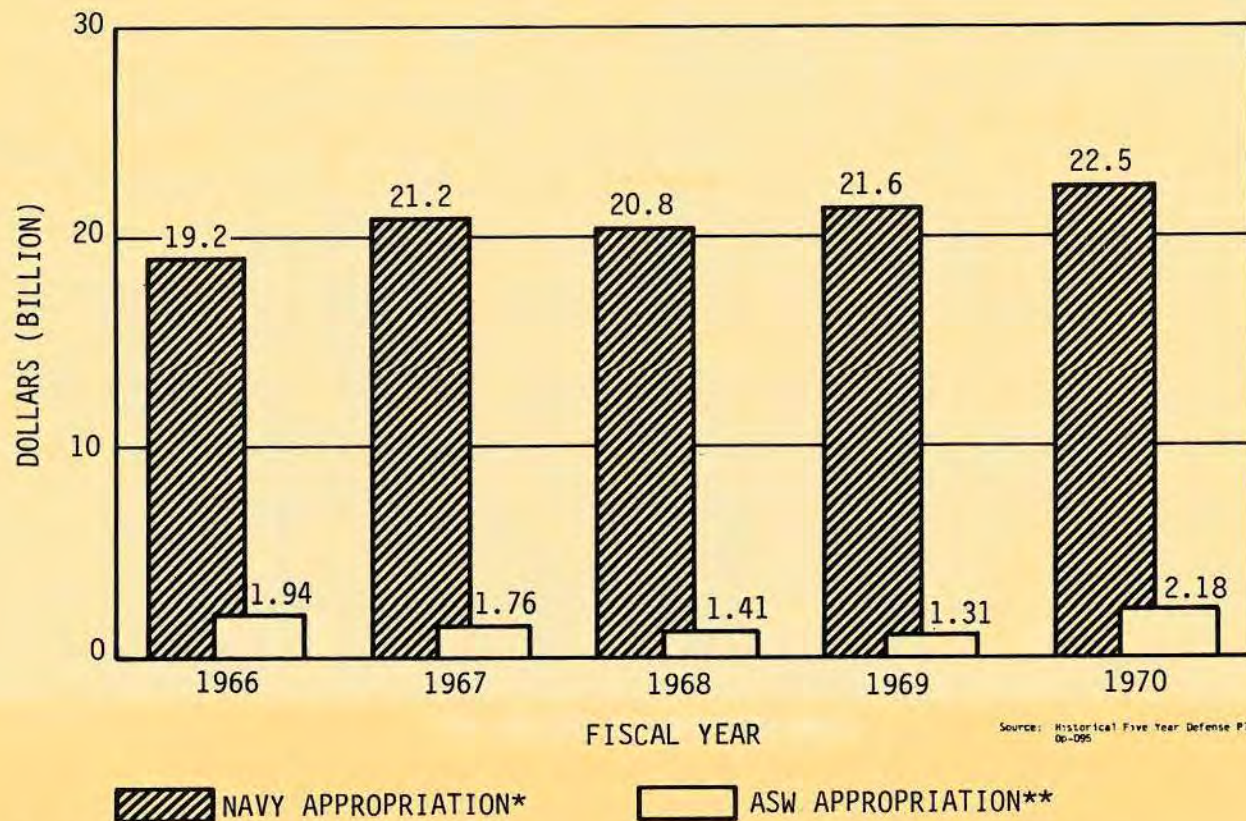
Gross Weight 2,296 lbs
Vmax 78 kts

The Vietnam War

AIR ASW ORIENTED ORGANIZATION 1969



FINANCIAL SUMMARY



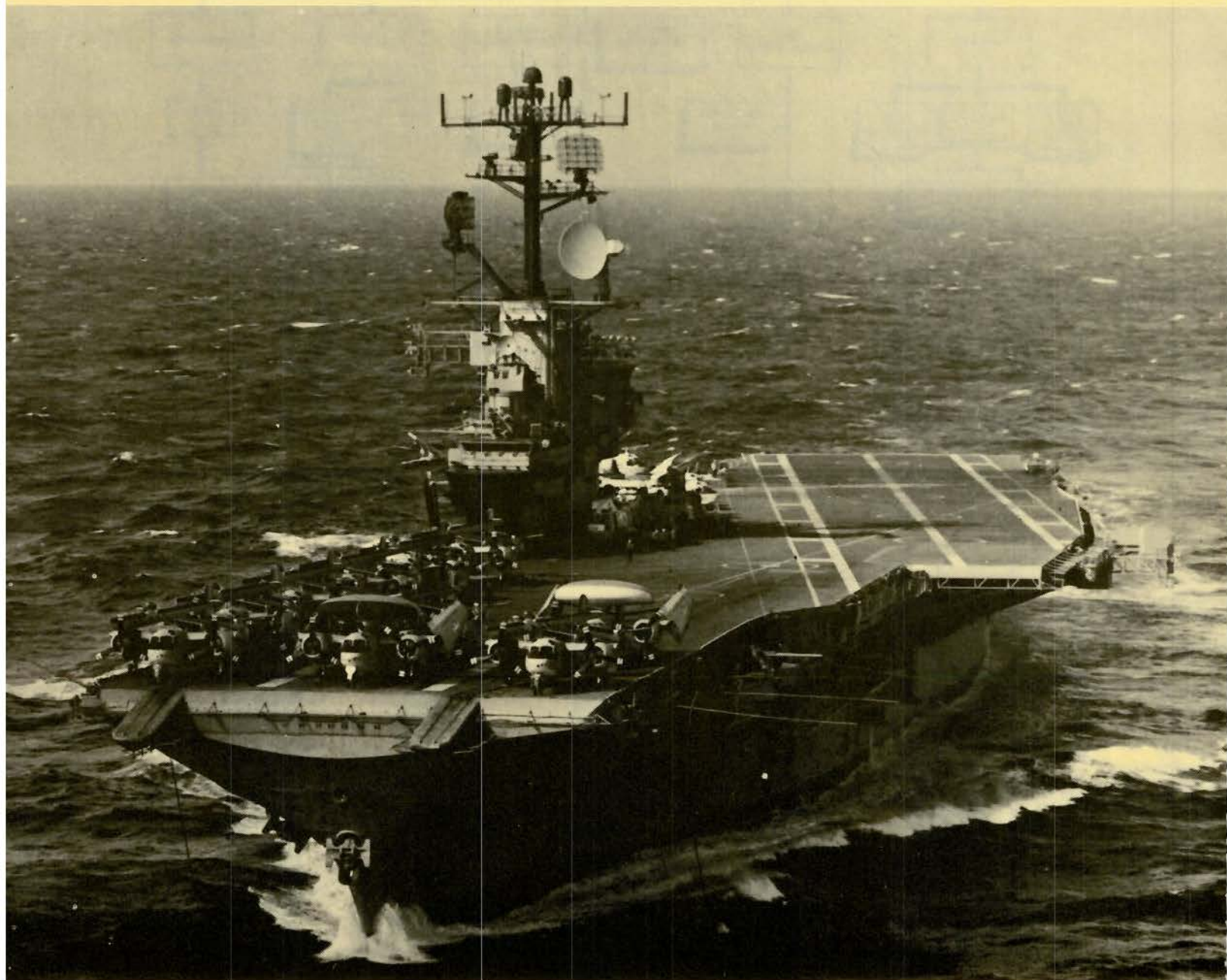
* Includes total Navy appropriation.

** Includes only aircraft, weapons, shipbuilding and conversion, and other procurement.

S-B
ASW

UNCLASSIFIED

The Vietnam War



USS INTREPID (CVS - 11)

U.S. Navy

UNCLASSIFIED

Chapter VI

The Vietnam War

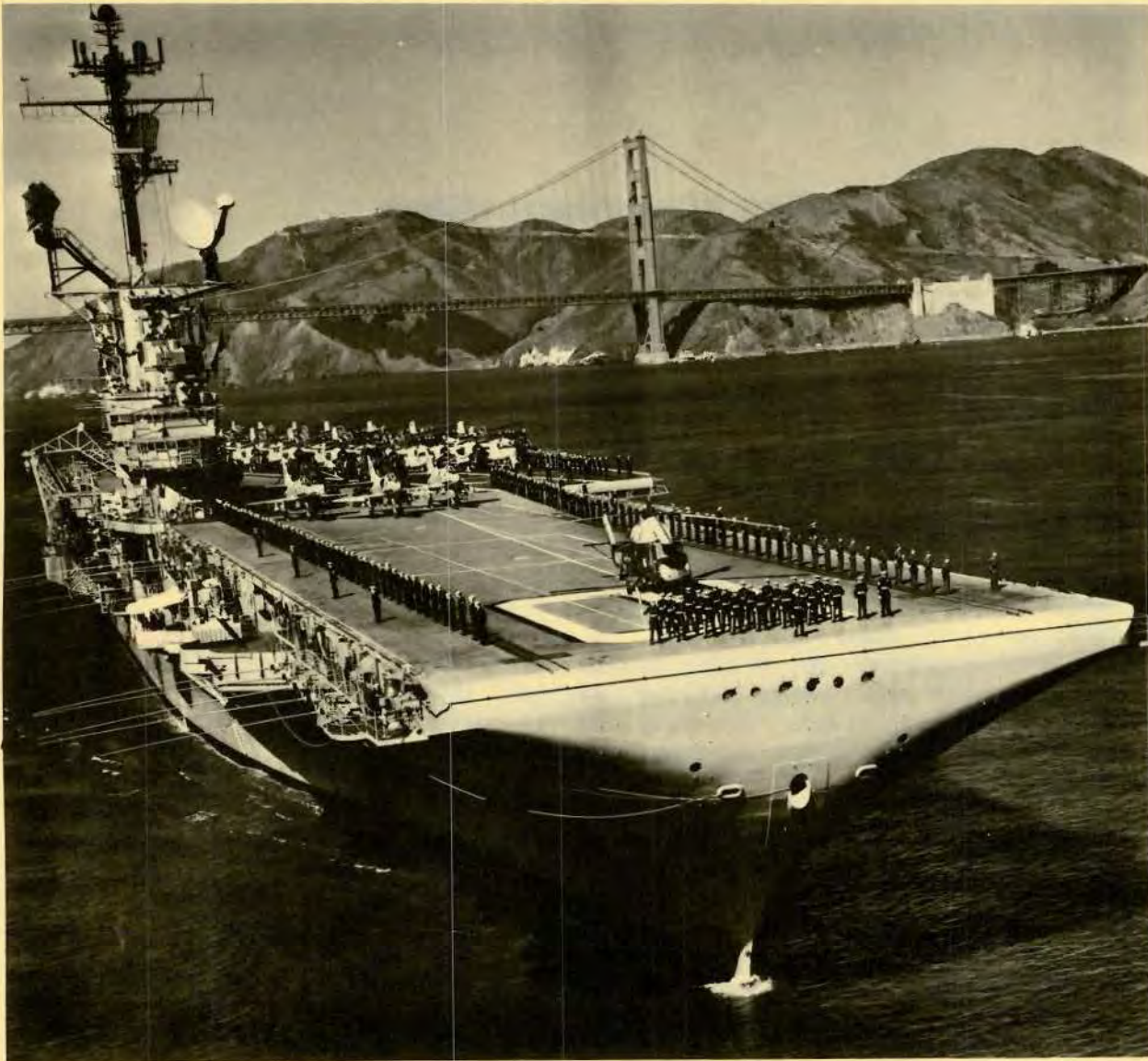
The Vietnam War

(U) On 2 August 1964, the increasing tensions in Southeast Asia broke into open conflict with the North Vietnamese torpedo boat attack on the destroyer *Maddox* (DD 731) off the coast of Vietnam. The SEVENTH Fleet, through Task Force 77, immediately became involved as four F-8F aircraft flew in support of the destroyer from *Ticonderoga* (CVA 14), an *Essex* class 27C and the only carrier in the area. Later, joined by *Constellation* (CVA 64), both carriers executed retaliatory strikes against North Vietnamese naval installations. The Navy and its carriers then saw only limited involvement against North Vietnam for the remainder of 1964.

*The Maddox
Incident*

(U) However, for much of the next five years--from February 1965 until 1970--the Navy's Pacific ASW carriers would support the growing U.S. military involvement in Vietnam, supporting ground actions ashore and participating in ocean surveillance. The tempo of ASW operations of the dedicated SEVENTH Fleet HUK Group, TG 70.4, would suffer as its resources were diverted to these other purposes. Starting in February 1965 ASWGRU 3 in *Yorktown* (CVS 10) did provide surface-subsurface surveillance coordination duties and ASW protection of SEVENTH Fleet attack carrier units. Regular ASW exercises were continued in WESTPAC as well, by *Yorktown* (CVS 10) during February 1965, and *Bennington* (CVS 20) in August, the first with the British and New Zealanders and the second with the Japanese Navy in the Sea of Japan. This pattern of two ASW exercises each year was followed, generally out of the immediate area of the Vietnam conflict, as each ASW carrier arrived in WESTPAC for its six month tour of duty. As in Korea fifteen years before, there was no immediate hostile action by either the Soviet or Chinese submarine fleets, both of which were very

*CVS Vietnam
Operations*



U.S. Navy

(U) USS Yorktown (CVS 10) entering San Francisco. She carries an early UH-2A and three A-4Bs as well as her complement of SH-3As and S-2Es.

real and which could threaten the Navy's routes by sea on which the Allied Vietnam action was so dependent.

Shallow Water Problems

(U) One immediate concern was the poor shallow water conditions in the Gulf of Tonkin which presented a problem in submarine detection. In 1966 Commander ASW Group FIVE prepared a series of reports which contained information on the shallow water environment and its effect on weapons and sensors in the Gulf. COMASWFORPAC in 1967 reported that:

The Vietnam War

(U) In summary, we have in the past year advanced our knowledge in shallow water and in the particular area of interest, the Gulf of Tonkin. . . .¹

(U) Recent extensive operations in shallow water areas, particularly those in the South China Sea, have pointed out the need to determine ASW torpedo performance in this environment. . . .

(U) COMASWGRU's THREE and FIVE have conducted shallow water Mk 44 torpedo firings in the South China Sea. In general, these results, while not statistically significant, fall just below the PACFLT average. COMASWGRU FIVE . . . submitted a thorough analysis of 130 Mk 44-1 torpedo firings in the Tonkin Gulf. Of 79 valid firings, 26 failed because of surface or bottom capture. . . . ASW groups will continue to conduct shallow water firings in the South China Sea area during WESTPAC deployments. . . .²

(U) By January 1967 the Commander SEVENTH Fleet was recommending two ASW carrier groups instead of one be deployed to the SEVENTH Fleet and that the deployment be continuous: "These additional assets would increase Yankee Station coverage, provide forces for more exercises, and cover Soviet out-of-area operations."³ However, the Commander in Chief, Pacific Fleet stated that, "Demands on deployed PACFLT ASW forces for support of operations in SEASIA had degraded PACFLT antisubmarine potential compared to the increased threat of Soviet submarine forces in the Pacific." 1.3 ASW groups were planned for the WESTPAC area, with irregular overlapping deployments. During the period of overlap, one of the ASW groups was to be ASW dedicated and under the operational control of Commander Anti-submarine Warfare Forces, Pacific.⁴

*Increased
CVS Forces
Required*

(U) For a brief period during 1968-1969, two ASW carrier groups were occasionally deployed in WESTPAC at the same time, one participating in the biannual ASW exercises.* ASW Groups ONE, THREE and FIVE participated in these deployments, operating from *Kearsarge* (CVS 33),

* One in the Sea of Japan, while the other concentrated on ocean surveillance off Vietnam in the South China Sea.



(U) USS Bennington (CVS 20) refueling on Yankee Station off Vietnam 28 August 1968. She carries the latest search radar and landing aids.

Yorktown (CVS 10), Hornet (CVS 12), and Bennington (CVS 20), all Essex class 27A conversions.* During the Pueblo (AGER-2) incident of January-February 1968 both ASWGRU ONE and FIVE were in the Sea of Japan, with FIVE's deployment extended until April. This crisis was sufficiently serious that VDS was authorized for use on 2 February on ASW operations in the Sea of Japan. These exercises were followed by a Sea of Japan transit from 31 May to 10 June by COM-ASWGRU THREE in Bennington (CVS 20). Three Yankee Station ASW transit exercises were conducted during June as well.**

The ASW Carriers Phase Down

(U) By late 1969, with the completion of Kearsarge's (CVS 33) deployment in August, no ASW carrier was regularly assigned to the TG 70.4 HUK group role, reflecting the requirements other than ASW which kept these ships occupied.

* The WESTPAC deployments during this period were:

ASWGRU THREE (USS Yorktown)	7 December 1964 - 12 May 1965
ASWGRU FIVE (USS Bennington)	4 May 1965 - 23 September 1965
ASWGRU ONE (USS Hornet)	24 September 1965 - 21 February 1966
ASWGRU THREE (USS Yorktown)	21 February 1966 - 16 July 1966
ASWGRU FIVE (USS Kearsarge)	16 July 1966 - 7 December 1966
ASWGRU ONE (USS Bennington)	8 December 1966 - 10 May 1967
ASWGRU THREE (USS Hornet)	1 May 1967 - 16 October 1967
ASWGRU FIVE (USS Kearsarge)	5 September 1967 - 24 March 1968
ASWGRU ONE (USS Yorktown)	24 January 1968 - 20 June 1968
ASWGRU THREE (USS Bennington)	22 May 1968 - 26 October 1968
ASWGRU FIVE (USS Hornet)	26 October 1968 - 2 May 1969
ASWGRU ONE (USS Kearsarge)	24 April 1969 - 26 August 1969

** Unlike the attack carriers, none of the Atlantic Fleet antisubmarine carriers were deployed to WESTPAC in the ASW role during the last half of the sixties although Intrepid (CVS 11), a 27 C conversion, did deploy repeatedly until mid-1970 as a light attack carrier.

The Vietnam War

By mid 1970, all four Pacific ASW carriers were scheduled to be decommissioned, *Yorktown* (CVS 10) shifting to the Atlantic Fleet, leaving only a single 27C, *Ticonderoga* (CVS 14), in the ASW role in the Pacific Fleet, she having been redesignated as an antisubmarine carrier on 21 October 1969.

The Threat

(U) Submarine contacts during this period in the Western Pacific varied in intensity and location. Through 1968 these were evenly distributed from Vietnam north through the Sea of Japan with most positive identifications in the latter area. In 1969, Soviet submarine activity dropped significantly, and what little remained was concentrated around the Japanese home islands, often detected enroute to or from Petropavlovsk to operational holding areas and to routes employed by the relieving U.S. carriers.

*WESTPAC
Summary*

(U) In the Eastern Pacific the Soviets' conventionally powered, missile carrying Golfs had been on station for some time, as reported by ASWFORPAC in 1967:

(U) Observations over the past two years reveal that Soviet conventional ballistic missile submarines have established routine patrols from Petropavlovsk to mid-Pacific holding areas approximately 500-900 (miles) north of Hawaii. . . .⁵

*The Golfs
Go On
Station*

(U) In 1969 ASWFORPAC assessed Soviet submarine operations in the Pacific:

(U) Soviet deployment areas are those which most effectively utilize the weapons system installed in their submarines. The Soviets appear to deploy submarines as follows: Ballistic (nuclear or conventional) missile submarines--to holding areas about 1,000 miles equidistant from Hawaii and the West Coast of the U.S. and a holding area eight hundred miles off the Pacific Northwest. These areas are about two days transit from launch points, however, with the advent of (the) 1,500 NM SS-N-6, they will become launch areas: Cruise missile and conventionally armed submarines--generally (are) deployed to areas where they may best intercept naval forces and surface

*Soviet
Submarine
Deployments*

The Vietnam War



(U) A Hotel II in trouble off Newfoundland.

U.S. Navy



(U) A Golf II showing its enlarged sail which accommodated the SS-N-5 ballistic missile.

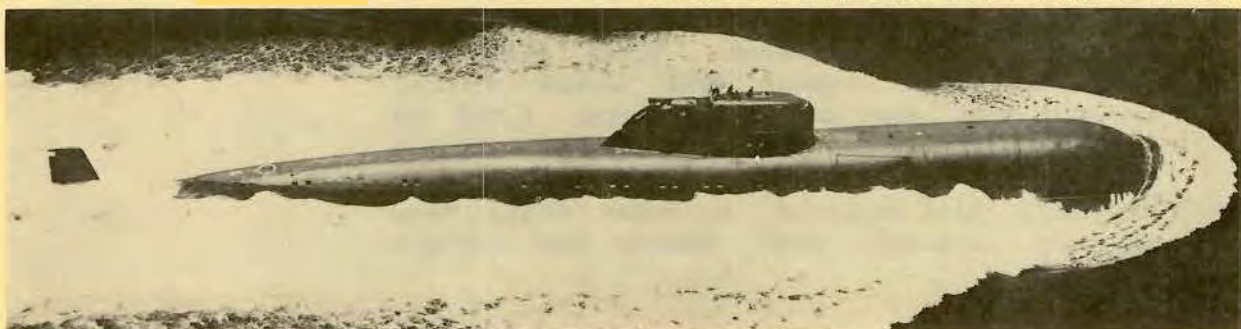
U.S. Navy



U.S. Navy

(U) Top: A Soviet Victor--
Bottom: The Soviets' second generation cruise missile submarine--the Charlie, carrying eight SS-N-7 missiles forward.

b(1)



U.S. Navy

The Vietnam War

shipping. To date, the primary areas have been midway between the U.S. West Coast and Hawaii and the Philippine Sea Area.⁶

(U) At this time the Soviet Pacific submarine force was estimated to be composed of 113 submarines. Echo II SSGNs (12) and Foxtrot SS (18) were the most numerous after the 44 Whiskeys. In the Atlantic, the Northern Fleet totalled 158, including 102 attack, 29 cruise missile, and 27 ballistic missile boats, the latter nearly all of the Soviet Navy's strategic submarine forces. While the second generation Victors, Charlies, and Yankees were making their appearance, the primary operational burden during the late sixties was borne by the older Golfs, Hotels, Novembers, and Echos. The Hotel II and Golf II classes now carried the 650 mile SS-N-5 missile capable of submerged launch. The first two Hotel IIs were assigned to the Pacific Fleet from the Northern Fleet in November 1968, supplementing the Golfs off the Pacific Coast.

(U) During the late sixties, the Soviet Navy's second acoustic generation of submarines began to make their appearance

The Soviets' Second Generation

Included were the nuclear attack boats of the Victor I class, first observed on short patrol in September 1968 in the Norwegian Sea.

A second new class was the SSBN Charlie I. It was photographed operating partially submerged in the Barents Sea in April 1968. Each Charlie carried eight 30 mile SS-N-7 cruise missiles installed in a large bulbous bow. For the first time this gave the Soviets an antishipping/anticarrier cruise missile capable of submerged launch. The Charlie class, like the older Echos, were employed by the Soviets primarily in an anti-carrier role.

(U) Both the Victors and the Charlies made their operational appearance in 1968 as units of the Northern Fleet operating in the Norwegian Sea, the Victor making its initial out-of-area patrol at that time. In 1969, also in the North Atlantic, the first Yankee SSBNs went on patrol. These significantly improved submarines each carried sixteen SS-N-6 ballistic missiles capable of reaching 1,300 miles after submerged launch. This impressive new class was photographed at sea in April 1968. The Yankees in overall layout were near duplicates of the U.S. *Ethan Allen*



U.S. Navy

(U) Soviet Yankee class ballistic missile submarine.

class which had become operational nearly eight years earlier, and were the first Soviet design to employ sail planes, apparently to remove this noise source from the bow sonar.⁷

*Soviet
Surveillance
Aircraft*

(U) Soviet long range reconnaissance and missile control aircraft during this period were advanced versions of the Bear-D, Badger, and Blinder, all of which had made their appearance earlier in the sixties, and whose range allowed the Soviets to monitor free world movements at sea in the North Atlantic and Pacific as well as the Mediterranean. However, they represented a major air to surface missile threat to the fleet. Also, there was the surface to surface missile threat and the role Soviet aircraft were playing, as reported by ASWFORPAC in 1967: (U)

(U) In addition to this air to surface missile threat, CVS operations in the Pacific are threatened by the development of a large

The Vietnam War



U.S. Navy

(U) USS John Marshall (SSBN 611) of the Ethan Allen class.

fleet of submarines capable of firing surface to surface cruise missiles (the Echo II). At present there are 19 cruise missile-firing submarines located in the Pacific Ocean area. Strike operations against our carrier forces is the probable primary mission of these submarines, which in the aggregate can fire over 100 cruise missiles in the PACOM area. To exploit the cruise missile's 350 nautical mile range, advance surveillance is required to provide information concerning the target's identification and location to the launching submarine. A likely candidate for this forward observer role is the Soviet bomber aircraft (e.g. TU-95/BEAR) that has been utilized to gain considerable reconnaissance experience in overflight operations against U.S. carrier forces both in the Pacific and the Atlantic. There is now firm evidence that the video data

*The Bears'
Targeting
Role*



U.S. Navy

(U) Soviet Bear-D long range aircraft.

derived by the radar A334Z (formerly ABFQ) in the TU-95/BEAR D aircraft is transmitted to a surface station. The marrying of the submarine cruise missile system with the aircraft observer constitutes a most grave threat against our surface forces including CVA and CVS.*⁸

(U) The Atlantic Fleet made essentially the same assessment:

(U) The Soviet submarine-launched cruise missile weapon system appears to have been designed for use against naval surface forces. If the cruise missile has a reliable terminal homing system perhaps achieved by working jointly with aircraft, AGIs, or other surface units, it will pose a major threat to carrier strike forces, amphibious forces and convoys.¹⁰

A Soviet
Submarine's
Cruise...

(U) By 1968 Soviet submarine out-of-area deployments were showing surprising sophistication. One nuclear powered submarine, believed to be a November, on patrol from 4 December 1967 through 19 January 1968 out of Petropavlovsk, transited the Aleutian chain, tested the SOSUS systems off the West Coast in close coordination with an AGI, and at high speed intercepted *Enterprise* (CVAN 65)

* As a result, COMASWFORPAC in 1966 questioned the validity and desirability of using 150 ship convoys as had been assumed in the earlier Cyclops II study. "... The convoy concept should be reviewed in the light of the Echo class submarine supported by (aircraft and) satellite surveillance. (Also) port capabilities in the Western Pacific, except Japan, make the utility of 150 ship convoys questionable."⁹

The Vietnam War

which was deploying to WESTPAC. *Truxtun* (DLGN 35), escorting *Enterprise*, diverted to the submarine, gained sonar contact, and directed a P-3 to the submarine, which surprised it on the surface at dusk. In commenting on this operation COMASWFORPAC stated:

(U) The extensive out-of-area patrol conducted by XRAY-5 (the submarine) revealed significant capabilities and patterns heretofore unobserved in the Pacific.

(1) (U) The transit to EASTPAC via the Bering Sea/Gulf of Alaska route was the first confirmed deployment via this "shortcut" to EASTPAC operating/holding areas. Continued use of this route could appreciably reduce transit time; however, in terms of resources expended this route could also prove to be very economical and defensible for our ASW forces.

... And
What It
Meant

(2) (U) The extensive coordinated operations with the *Gavril Sarychev* (AGI) was the first operation of this nature observed in the Pacific. As such, it is indicative of very advanced mission planning and an effective submarine command and control and support broadcast system.

(3) (U) The maneuvers of both XRAY-5 and *Sarychev* imply at least a general knowledge of the West Coast SOSUS network. Whether the locations of the arrays are known with preciseness or whether their locations were deduced from the location of the NAVFAC sites, is open to conjecture.

(4) (U) XRAY-5's intercept of USS *Enterprise* (CVAN 65) provided a dramatic demonstration of the growing proficiency and confidence of both crews of the Soviet's nuclear submarines and the command and control network directing them. Viewed in toto, the intercept of *Enterprise* became an even more remarkable and dramatic demonstration of the capability, responsiveness and new aggressiveness of the Soviet Pacific submarine force. There are indications that *Enterprise*'s impending departure for WESTPAC prompted the Soviets to test

the responsiveness of their at-sea submarine resources by undertaking a multiple intercept. Although no conclusive evidence exists, it is possible that *Enterprise* was intercepted, or intercept attempted, by other out-of-area contacts (N 285 on 5 January 1968, and N 4/5 on about 12 January 1968) as well as by XRAY-5. In addition, *Sarychev*, after a short delay in the vicinity of Monterey Bay, rejoined the evolution and may have contributed measurably from possible intelligence intercept in the Hawaiian area. Thus, though the patrol of XRAY-5 was unique and significant in itself, the overall operation in which XRAY-5 took part required an extremely effective and responsive command and control system, highly competent and confident submarine crews and reliable submarine systems.¹¹

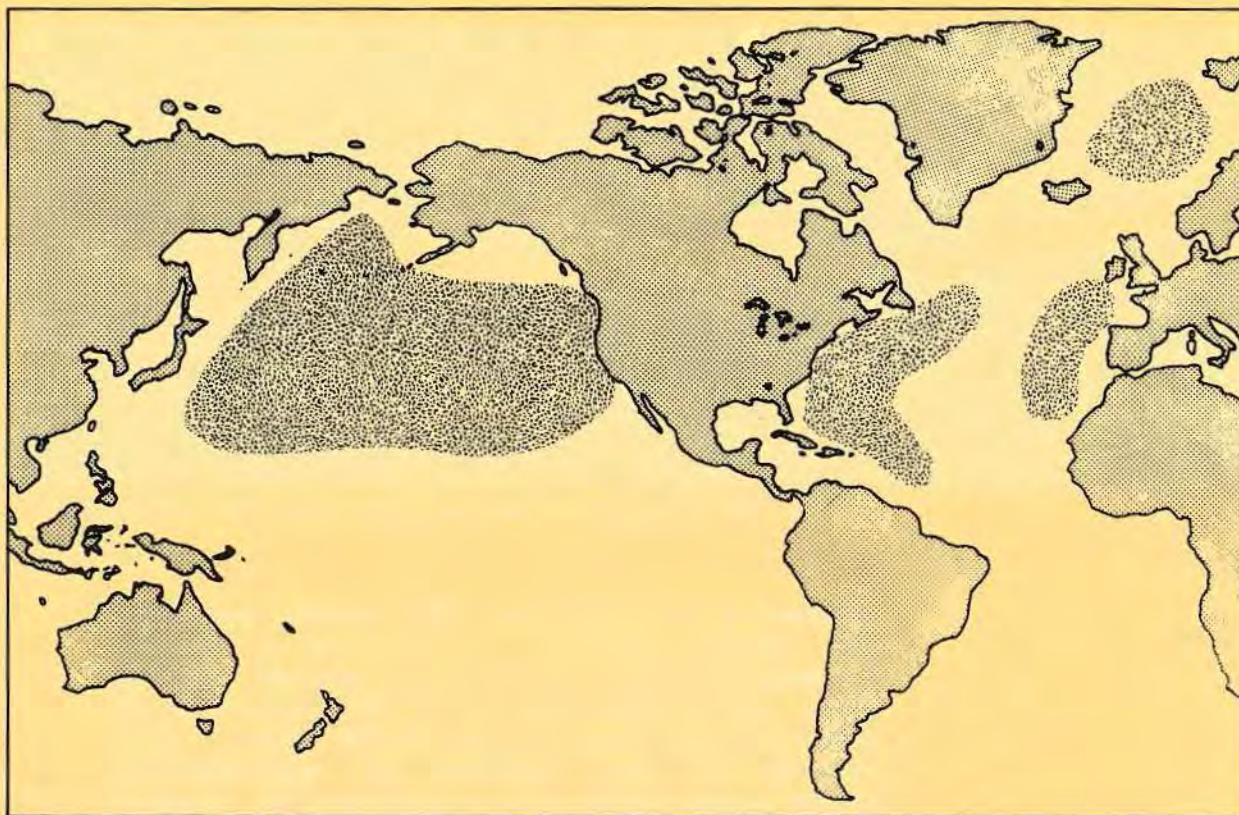
Surveillance Systems

The Forward Area SOSUS Concept

(U) In 1965 the CAESAR expansion plan for SOSUS of the early sixties was cancelled in favor of the "forward area concept." This concept called for installing SOSUS arrays in ocean areas of the world which allowed coverage of Soviet submarine transit routes to their operating areas as well as their local operations in home waters. This was an attractive alternative to expanding coverage in the shifting Soviet submarine patrol area since submarines on patrol were quieter and harder to track, technical intelligence on new submarines would only be available after they went on patrol, and tactical information would not be accessible until actual patrols were initiated. Specific areas of interest under the forward area approach were the Norwegian Sea and the Northwest Pacific Ocean areas. The genesis of this new thinking was the Alaskan OBOE array at Adak installed in 1962. Its ability to provide intelligence in the Petropavlovsk operating area, as well as information on submarines in transit, impressively demonstrated the potential of the forward area emplacements.¹² While its potential was quickly realized, there was obvious room for improvement since not all areas were adequately covered by SOSUS. VP aircraft provided the intelligence gap fillers against the Golf class ballistic missile submarine, as described in 1966:

(U) . . . At the present time SOSUS coverage permits only limited surveillance of

The Vietnam War



(S) Worldwide SOSUS, 1970.

these transiting SSB's. The EASTPAC long range SOSUS capability is not sufficiently reliable to provide assured MIDPAC holding area surveillance. In order to overcome large gaps in north and mid-Pacific SOSUS surveillance, the concept of using VP/SOSUS operations to extend the sound surveillance coverage to these areas has been developed. P-3 aircraft utilizing high altitude, large area surveillance tactics (HILAST) are used as a supplementary system to extend the covert sound surveillance capability.

*SOSUS and
VP in the
Pacific*

(U) As developed by actual operations against transiting Soviet submarines and in fleet exercises, the concept capitalizes upon the proven capability of the OBOE arrays to detect and track the initial portions of the SSB transits. Initial track development is accomplished utilizing SOSUS information only and P-3 HILAST is directed when the transitor



U.S. Navy

(U) P3A in early white and navy blue colors over San Francisco.

approaches the limits of Adak SOSUS coverage. The HILAST tactics . . . utilize a square, 9-sonobuoy pattern with 75-mile spacing between buoys, and is monitored by a P-3 aircraft at high altitude, generally at 20,000 feet. This provides an area coverage of approximately 50,000 square miles with a predicted 95 percent confidence of at least one detection of a conventional submarine transiting the pattern. The size of this pattern allows it to be used in those cases where, due to the distance from the SOSUS arrays, only very large SOSUS probability areas or a line of bearing can be provided.¹³

(U) In 1966 COMOCEANSYSPAC on the West Coast, organizationally responsible for SOSUS, now reported to COMASWFORPAC in line with the latter's increased ASW responsibilities. The SOSUS role was vital in COMASWFORPAC's view:

(U) SOSUS remains our only 24-hour ASW sensor which can provide early warning of enemy activity in the Pacific. The acceptance of a less than maximum readiness factor correspondingly reduces our national readiness posture. . . . (Recent studies) support the growing realization that SOSUS is a more valuable contributor to the total Pacific ASW system than has generally been realized.¹⁴

The Vietnam War

(U) In 1967 Vice Admiral J.L. Chew, COMASWFORPAC,* reported on the promising SOSUS developments as well as the efforts to colocate the SOSUS evaluation center with his headquarters in Pearl Harbor: (U)

(U) The Pacific SOSUS currently consists of six NAVFACs and an Evaluation Center. It provides assured coverage for a relatively small part of the area of interest in the Pacific Ocean.

*Pacific SOSUS
Improvements,
1967*

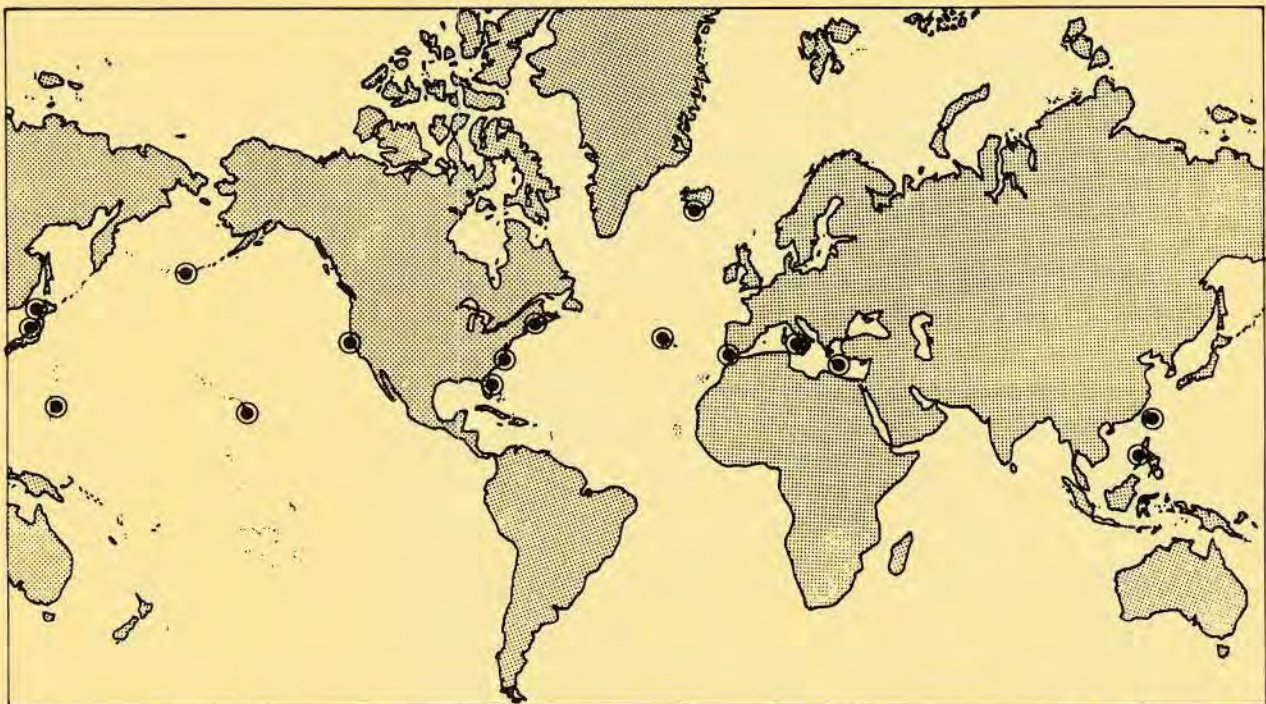
(U) SOSUS serves essentially two functions. First, it provides COMASWFORPAC with strategic intelligence on potentially hostile submarine movements which, correlated with other ASW related information, serves as a basis for making strategic decisions such as targeting and ASW force deployment against the submarine threat. Second, it provides tactical ASW information by which forces may be vectored to submarine targets.

(U) (CNO correspondence), addressed to CINCPACFLT, outlines CNO's most recent statement of plans for SOSUS coverage in the Western Pacific. It states that the Five Year Defense Plan provides for the installation of two additional arrays in the mid-Pacific and five additional arrays in the Philippine Sea during FYs 68, 69, and 70. . . .** Concurrent with the survey operations, a major study effort has been undertaken to determine the optimum number of arrays required to meet the submarine threat, to identify array locations and priority of installation, and to define the command/control requirements for system integration.¹⁵

* 12 January 1966 to 7 July 1967.

** In the Pacific as a result, new arrays were installed near Chichi Jima and north of Midway with NAVFACs at Guam and Midway. These became operational in December 1968 under the tightest possible security. Additional surveys were conducted during 1968 in the Philippine Sea, north of Midway, and in the Hawaiian area with a view toward establishing added surveillance in these areas.

The Vietnam War



(U) P-3 bases, 1970.

The Vietnam War

(U) Along with the expansion in detection capability went the need for a stronger, more centralized control, as reported by COMASWFORPAC in 1967:

(U) The CNO study group tasked to define the command/control requirements for SOSUS system integration is being constantly apprised of the study progress and plans under the Pacific ASW Integrated Command and Control System (PASWICCS)* development now underway at COMASWFORPAC. It is considered essential that these two command control planning efforts be coordinated to the maximum possible extent since SOSUS will contribute a significant proportion of intelligence on communist bloc submarine movements.

*Improved
Intelligence
Requires
Improved
Control*

(U) COMASWFORPAC's responsibility for direction of Pacific ASW requires that every source of strategic ASW intelligence be available to him by the fastest means possible and in enough detail to assess accurately the submarine threat. Experience in the Atlantic and the Pacific has demonstrated the advantage of the ASW Commander being collocated with the SOSUS Evaluation Center. Such an arrangement provides the necessary close liaison between the ASW Commander and the SOSUS Commander so that SOSUS intelligence on a developing submarine threat can be best interpreted.¹⁷

(U) This addressed the 2,200 mile separation between Ocean Systems Pacific in San Francisco and COMASWFORPAC in Hawaii, a situation which did not exist in the Atlantic. As a result, in 1967 COMASWFORPAC officially requested that COMOCEANSYSPAC be moved to Hawaii. CINCPACFLT and CNO concurred and construction of the new facilities to house the two ASW organizations was scheduled to start 1 July 1968.

*COMOCEANSYSPAC
Moves to
Pearl*

* Pacific ASW Integrated Command and Control System (PASWICCS). It would provide the Pacific Command with a defense system against the submarine threat roughly similar to the NORAD Command and Control System that provides for defense of the CONUS against the air breather and missile threat.

COMOCEANSYSPAC would become operational in its new center by early 1969.¹⁸

Atlantic
SOSUS

(U) In the Atlantic the SOSUS system had grown to thirteen Sound Search Stations (SOSS) including four arrays at Keflavik, Iceland looking in to the Norwegian Sea, as well as four deep water arrays at Argentia. Two new arrays manned by the Canadian Navy were installed at Shelburne, Nova Scotia. The oceanographic system in the Atlantic was described in 1969 as follows:

(U) Data on threat targets and contacts of interest is passed from the above stations, via secure circuits, to the SSEC (Norfolk) for compilation, evaluation, and further dissemination to COMASWFORLANT. When directed, SOSUS stations pass contact information directly to local ASW Sector Commanders and associated mobile ASW forces. To this end, SOSUS data is provided daily to Fleet patrol aircraft on station and to participants in most ASW exercises for training purposes.¹⁹

(U) This Atlantic SOSUS system, while covering a smaller ocean area than its Pacific counterpart, was required to sort through considerably more traffic as indicated by the Atlantic statistics:

(U) During 1968, SOSUS detected 467,677 contacts of which 4,755 were submarine contacts (1,716 U.S. nuclear submarines, 2,451 U.S. diesel submarines . . . 303 Soviet nuclear submarines . . . and 285 Soviet diesel submarines).²⁰

(U) As in the Pacific, the ASW carriers could establish semipermanent links with the SOSUS communication nets via NAVCOMMSTA, these being considered extensions of the NAVCOMOPNETS. In this way, a HUK group commander afloat could become part of the NAVCOMOPNET.²¹ Most EASTLANT CVS deployments to the Norwegian Sea during the late sixties were under ASWFORLANT control via this net.

(U) It is noteworthy that during 1967 and 1968 COMASWFORLANT VP aircraft conducted extended high altitude covert surveillance on 17 Soviet diesel and nuclear submarines, initially tracked by the Norwegian Sea SOSUS, deploying into the Atlantic via the Iceland-Faroes Gap.

The Vietnam War

244 sorties were flown, 169 of which gained some contact against Hotel, November, and Echo II nuclear submarines. If SOSUS was hot, contact was made 81 percent of the time; if SOSUS was cold 24 hours prior to arrival at datum, no contact was made. During this period the first documented transit of the Denmark Straits by a Soviet nuclear submarine was made. Also noted was that the Soviets monitored communications support at 1015 and 2130 daily for approximately one hour. Speeds through the G-I-UK Gap were slower than transits in the open ocean or the Norwegian Sea.²²

Fleet Organization - Pacific

(U) As outlined in Chapter V, the last half of the sixties opened in 1965 in the Pacific with Commander ASW Forces, Pacific steadily growing in organizational strength and responsibilities. The three newly redesignated ASW carrier groups (ONE, THREE, and FIVE) now reported directly to COMASWFORPAC administratively, although still serving on a rotational basis within the two numbered fleets--FIRST and SEVENTH--in the Eastern and Western Pacific respectively. COMASWFORPAC, with his increased responsibilities, aggressively set up detailed procedures to measure the effectiveness of the Pacific Fleet's ASW forces. Said Vice Admiral John T. Hayward in 1966:

ASWFORPAC
Grows In
Strength and
Responsibility

(U) COMASWFORPAC considers the Pacific Fleet ASW forces capable of carrying out their assigned missions against the conventional submarine threat, but inadequate, both quantitatively and qualitatively, to counter the nuclear and missile-launching submarine threat. This capability is measured by means of several vehicles which include: the readiness standards imposed by the various type commanders, the results of Operational Readiness Evaluations of ASW Groups, DEFSLAMEX's, the FIRST and SEVENTH Fleet ASW Exercises all of which are reconstructed. . . . The reconstructions and resulting statistical data have assisted in determining force readiness, capabilities, strengths, weaknesses and effectiveness of ASW equipment. The analysis of the statistical data has indicated in most instances significantly poorer performance by ASW sensor systems than indicated in manufacturer's trials and OPTEVFOR tests.²³

Operational
Performance
Doesn't
Measure Up

The Vietnam War

(U) Exercises during this period led to the following conclusions according to COMASWFORPAC: (U)

1. (U) Overall ASW search effort is degraded by required investigation of numerous false contacts. This is accentuated by poor environmental conditions.

2. (U) Inability of existing SOSUS arrays to provide accurate positional information of enemy intruders.

3. (U) Airborne LOFAR is the best detection and classification device, but there is essentially no capability to localize the resulting contacts.²⁴

Localization
is a Problem

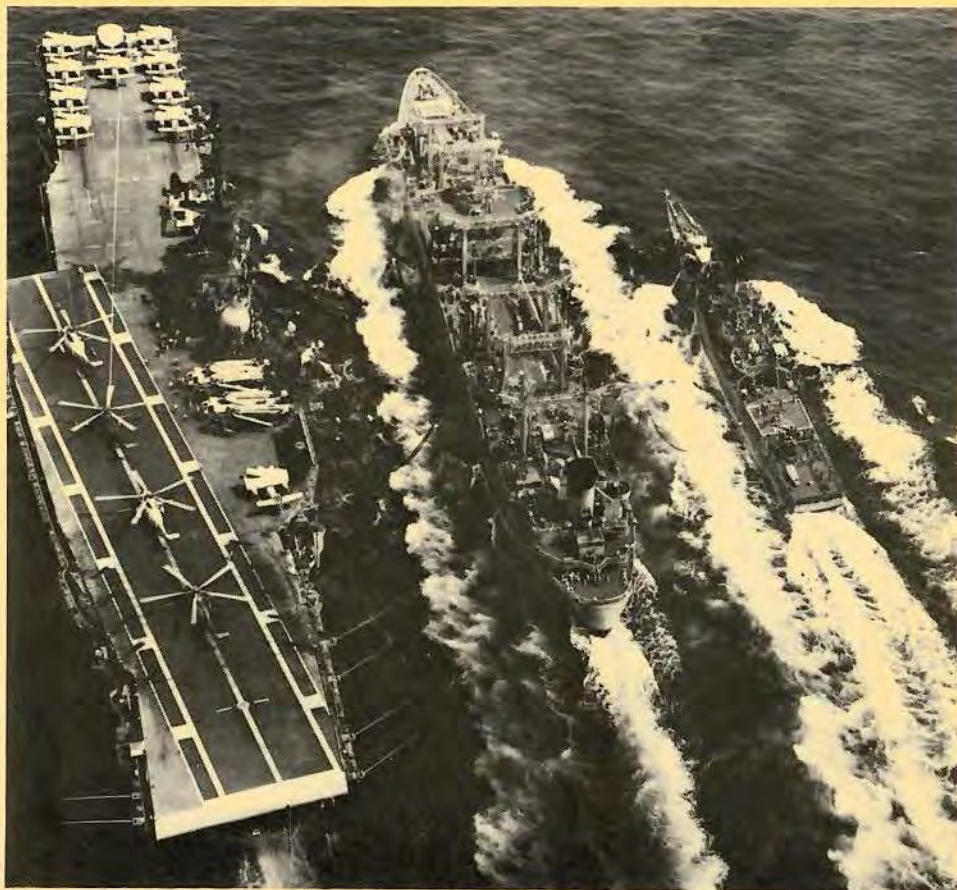
(U) Intensive operational readiness evaluations (ORES) were held by COMASWFORPAC through most of this period for all CVS groups deploying, including reconstruction of exercises at Pearl Harbor. This included:

ASWGRU FIVE	(USS Bennington, CVS 20)	29 Mar. - 19 Apr. 1965
ASWGRU ONE	(USS Hornet, CVS 12)	19 Aug. - 12 Sep. 1965
ASWGRU THREE	(USS Yorktown, CVS 10)	12 Jan. - 15 Feb. 1966
ASWGRU FIVE	(USS Kearsarge, CVS 33)	15 June - 7 July 1966
ASWGRU ONE	(USS Bennington, CVS 20)	10 Nov. - 28 Nov. 1966
ASWGRU THREE	(USS Hornet, CVS 12)	9 Apr. - 12 Apr. 1967
ASWGRU FIVE	(USS Kearsarge, CVS 33)	22 Aug. - 18 Sep. 1967
ASWGRU ONE	(USS Yorktown, CVS 10)	5 Jan. - 10 Jan. 1968
ASWGRU THREE	(USS Bennington, CVS 20)	6 May - 20 May 1968
ASWGRU FIVE	(USS Hornet, CVS 12)	3 Oct. - 18 Oct. 1968
ASWGRU ONE	(USS Kearsarge, CVS 33)	4 Apr. - 14 Apr. 1969

(U) As COMASWFORPAC's responsibilities increased, some confusion arose, however, between the general reconnaissance and surveillance activities of CTF 90, a non-ASW entity of CINCPACFLT, and CTF 30, now responsible for those activities with ASW overtones and thus the responsibility of COMASWFORPAC.* To eliminate some of this organizational confusion, VADM Hayward therefore proposed in March 1965 that the mission of ASWFORPAC be expanded to include:

* Vice Admiral J.S. Thach was succeeded as Commander ASW Forces, Pacific by the following vice admirals: J.T. Hayward (June 1963 - January 1966), J.L. Chew (January 1966 - July 1967), H.G. Bowen, Jr. (July 1967 - November 1969), and E.P. Aurand (December 1969 - September 1972).

The Vietnam War



(U) USS Kearsarge (CVS 33) and USS Bronstein (DE 1037) refueling from USS Ashtabula (AO 51), 7 June 1969 in WESTPAC. Note number three elevator is in its stored position.

U. S. Navy

1. . . . Responsibility for naval defensive operations in the Middle and Eastern Pacific including defense of the Continental United States and the Panama Canal.

2. . . . Responsibility for reconnaissance and surveillance in the middle and eastern Pacific. . . .²⁵

(U) These issues were finally resolved in 1967 when CINCPACFLT* assigned COMASWFORPAC, then VADM Bowen, the requested tasks of conducting ASW reconnaissance and surveillance in the Eastern and Middle Pacific areas as well as other operations necessary to ensure an integrated antisubmarine defense of the continental United States and its shipping. In addition, COMASWFORPAC was now made

* Admiral Ulysses S.G. Sharp, Jr.

*The Submarine
Contact
Analysis and
Evaluation
Centers*

responsible for the defense of the Pacific sea approaches to Alaska, the Panama Canal, and the Hawaiian Islands from submarines and submarine-launched attacks.²⁶ At this time the West Coast SOSUS system was still under COMOCEANSYSPAC in San Francisco.

(U) ASWFORPAC prior to the physical relocation of COMOCEANSYSPAC to Pearl Harbor, moved to develop a series of Submarine Contact Analysis and Evaluation Centers (SCAEC). The progress of this effort was summarized in early 1967:

(U) These centers should have the capability to conduct post-contact analysis and evaluation of unidentified contacts, to screen collected data for potential intelligence exploitation, and to assess the reliability of the sensor system employed. Additionally, these centers should supervise the performance of ASCACs and SOSUS Evaluation Centers and assist OPCONS in contact correlation.²⁷

*SCAECs Lead
to PASWICCS*

(U) VADM Bowen, COMASWFORPAC, expanded the SCAECs into the more ambitious PASWICCS in 1969:

*The Pacific's
Unique
Problems*

(U) The vastness of the Pacific combined with the paucity of Pacific ASW resources creates special problems in reconnaissance and surveillance to assure a significant measure of effectiveness in keeping track of the sizeable number of potentially threatening submarines. The PASWICCS concept proposed to employ maximum concentrations of available resources in the forward areas. . . . (Surveillance) provided by the SOSUS network must be augmented by subsidiary means, such as combinations of active, passive, semi-active sub-systems, fixed, portable, mobile and expendable sensors employed both covertly and overtly. . . .

(U) . . . COMASWFORPAC proposes to continue and expand ASW operations through the area command organization of the CTF 30 series. . . .

(U) . . . The Naval Command Operational Network is established to satisfy the requirements of naval operational commands afloat and ashore for a rapid Top Secret on-line communications capability for command and control.²⁸

The Vietnam War

(U) COMASWFORPAC described how all this worked, particularly as it related to WESTPAC and the SEVENTH Fleet:

ASW
*Communications
in the Pacific*

(U) . . . Unidentified contacts are reported initially from various sources, both civilian and military. All reports ultimately are received by COMASWFORPAC and the appropriate Area Commander in whose area the contact is located. The Area Commander in turn takes the appropriate action. . . . In East and MIDPAC, the Area Commander designates the contact, coordinates and directs the prosecution (requesting ASW surface forces as necessary from COMFIRSTFLT) and terminates the prosecution when the situation so dictates. In WESTPAC, COMSEVENTHFLT generally has operational control over most of the naval forces and is responsible for prosecuting any unidentified submarine contacts which present a threat to his forces. Therefore, COMSEVENTHFLT provides the ASW forces and directs the prosecution/termination of unidentified submarine contacts in the WESTPAC area. The WESTPAC Area Commanders act as an administrative coordinator between COMSEVENTHFLT and COMASWFORPAC, designating contacts and making required reports to higher authority. . . .²⁹

(U) PASWICCS in turn led to the development of ASW Force Command and Control System (AFCCS), applicable to ASW command and control requirements as stated by both Fleet ASW Commands. The Manager ASW Systems Projects was assigned the development of AFCCS in both the Atlantic and the Pacific. According to COMASWFORPAC:

(U) The initial phase of AFCCS uses elements of two existing operating and proven command and control systems as a base upon which to build, in an evolutionary manner, an advanced system. These are the Command Ship Data System (CSDS) and the Subordinate Operational Data Systems (SODS). Both systems employ basic hardware developed under the Naval Tactical Data System (NTDS) program. . . . NAVCOSSACT is modifying existing CSDS and SODS programs for utilization in this initial phase. The initial phase is . . . to become operational in July 1969.³⁰

The Vietnam War

(U) In commenting on the historic changes in ASWFORPAC and COMOCEANSYSPAC's forthcoming move in 1968 to Hawaii, VADM Bowen, COMASWFORPAC stated: (U)

*A Summary
of the Growth
of ASWFORPAC*

(U) . . . For the first six years of its existence it was not an operational force. The first resource that could be commanded was the Pacific SOSUS system and that only happened recently. For six years COMASWFORPAC was a staff that by virtue of having no operational responsibility did a great deal of fine work in analysis and things of that nature. But coincident with my arrival, . . . we have taken on an operational posture. It's really been done so that, if the war comes, we'll be in better shape because we've operated together in peace time. This hasn't been done before. . . . Instead of a group of fixed arrays comprising the resources in the locker of ASW forces in the Pacific, I now have patrol aircraft, submarines on occasion for missions that require it, and a good deal more of the ASW group's time to really practice my staff and myself in the operation that we would be called upon to conduct if our resources were required in war-time. This is a philosophy that has changed in the Pacific and certainly needs a lot of support. It has and is progressing. Obviously, there needs to be changes in organization, hardware, and some software. These are taking place. One of the most immediate manifestations of this change is the imminent move of Ocean Systems Pacific (SOSUS control) to Pearl Harbor to co-locate with me at my Headquarters. As you know, this is the situation essentially in Norfolk now. It's been a long time coming but is about to be and will be by the end of this calendar year. In order to utilize the resources that need to be available to do the job, there has been a considerable study of the requirements in the Pacific which came up with a thing called Pacific ASW Integrated Command and Control System (PASWICCS). This is adopted now as an all-ocean ASW Force command and control system program. We are very anxious to get it in the Pacific. . . .³¹

(U) As pointed out in the Command descriptions, other Pacific Fleet commanders had specific ASW responsi-

The Vietnam War

bilities which were now under the direction of COMASWFORPAC. These included COMSUBPAC Antisubmarine Operations (CTF 37); COMFAIRWING's (CTF 39) VP forces; and most importantly COMOCEANSYSPAC (CTG 30.4) now in Pearl Harbor and responsible for SOSUS. This, of course, was in addition to the various Pacific regional commands which included the sea frontiers, COMNAVMARIANAS, COMNAVPIL, and COMNAVFORJAPAN, all of which were Operational Control Authorities (OCAs).

The Atlantic Fleet ASW Organization 1965-1970

(U) The ASW organization in the Atlantic remained essentially unchanged during the 1965 to 1970 time period except as it was eventually affected by force reductions. The functions of the various ASW organizations were summarized by VADM Masterson in 1969 and generally repeat those outlined in Chapter Five: (U)

(U) TF 80 is commanded by COMASWFORLANT as a Sub-Area Commander, acting as Operational Control Authority (OCA) for the Ocean Sub-Area and as OCA ex-officio for ocean shipping in the entire Atlantic Command area. . . .

*The TF
Roles in the
Atlantic*

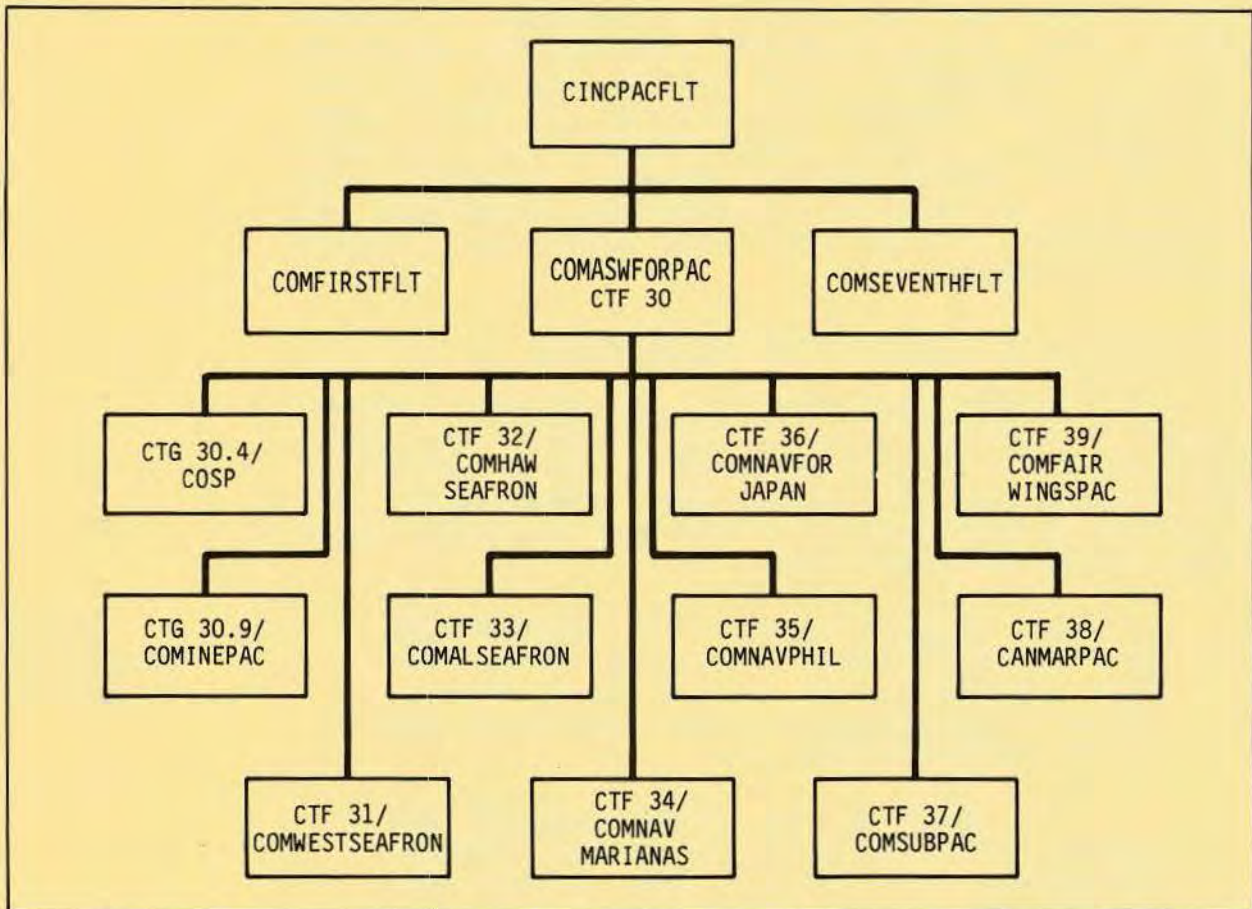
(U) TF 81 is the primary command and control operational framework of the Atlantic ASW System, both for open-ocean surveillance and submarine contact prosecution in time of peace and for wartime ASW, surveillance operations, and convoy escort. . . .

(U) TF 83 is commanded by the senior ASW Carrier Division Commander assigned (COMCARDIV 14, 16, or 20), who acts as Commander Hunter-Killer Force, Atlantic Fleet (COMHUKFORLANT).

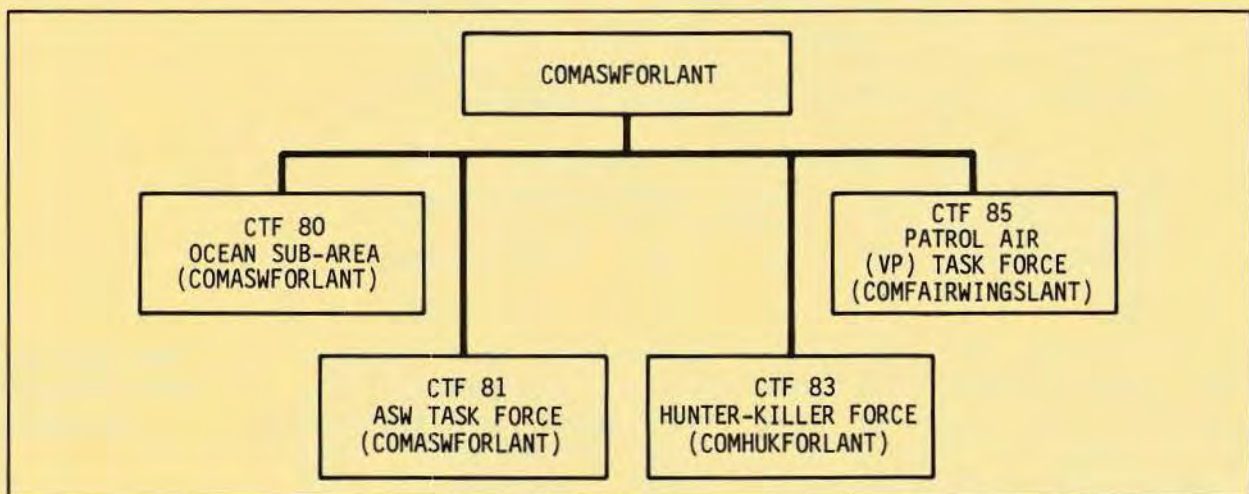
(U) TF 85, commanded by Commander Fleet Air Wings, Atlantic Fleet (COMFAIRWINGSLANT), under COMASWFORLANT, provides VP aircraft to COMASWFORLANT for ASW and surveillance operations. . . .³²

(U) The four designated development task groups, ALFA, BRAVO, CHARLIE, and DELTA, described in Chapters Four and Five, continued in their development and training roles. Commander Task Group 80, now COMCRUDESFLOT TWO, commanded ASW Group CHARLIE and shared responsibility for

*The Carrier
Task Groups,
Atlantic*



(U) Pacific Fleet/ASWFORPAC Command Structure.



(U) COMASWFORLANT Task Force Organization.